

HETEROMYSOIDES DENNISI, A NEW MYSIDACEAN
CRUSTACEAN FROM CEMETERY CAVE,
GRAND BAHAMA ISLAND

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Abstract.—*Heteromysoides dennisi*, the fifth species of the genus, is described from Cemetery Cave, a blue hole on Grand Bahama Island. It is characterized by having a spiniform process on the eyestalk and lacking a telsonic fissure.

The genus *Heteromysoides* was established by Băcescu for species of Heteromysini that differed from *Heteromysis* in having the cornea reduced and restricted to the distolateral part of the eyestalk, male lobe of antenna 1 represented by a pustulate knob armed with few or no setae, and pleopods not sexually dimorphic. The genus originally contained *H. cotti* (Calman, 1932) from a marine cave on Lanzarote, Canary Islands, and *H. spongicola* Băcescu, 1968, from the north coast of Cuba. Two species were recently added: *H. longiseta* Băcescu, 1983, from Heron Island, Australia, and *H. berberae* Băcescu and Müller (1985) from Somalia. A fifth species, the second from a marine cave, is described below.

Heteromysoides dennisi, new species

Figs. 1, 2

Material.—Bahamas, Grand Bahama Is., Cemetery Cave, a blue hole located 100 m off the S coast of the island, entrance depth 3-4 m. Specimens collected 330 m in from entrance at a depth of 17 m by Dennis Williams, 15 Sep 1984: ♂ holotype (USNM 222426) and 14 paratypes (USNM 222427).

Etymology.—Named for Dennis Williams, in recognition of his leadership in exploring marine caves.

Description.—Length up to 2.6 mm. Rostrum evenly rounded; posterior margin of carapace emarginate dorsally, exposing last pereonite. Eyestalk subquadrate; distolateral corner produced into acute process; cornea occupying central half of lateral surface. Telson entire, lacking apical cleft, slightly longer than width at base; distal third with 3 small and 1 large lateral spines, and 2 pairs of apical spines, outer pair twice length of inner pair.

Antenna 1 peduncle, segment 1 longer than segment 3, distolateral process with 3 apical setae; segment 2 short, triangular, with dorsal lobe bearing 2 setae, anterodistal corner with single seta; segment 3 with 3 setae at distolateral corner, 1 dorsal seta near base of outer flagellum, and round lobe between flagella bearing 3 setae. Male lobe pustulate, with 1 long seta.

Antenna 2, length of scale nearly $3.5 \times$ greatest width, without suture separating distal segment; lateral margin slightly concave, medial margin slightly convex. Peduncle composed of 2 broad proximal segments and 3 narrower distal segments; distolateral corner of segment 2 produced into acute spine.

Right mandible incisor 3-cusped; lacinia subcylindrical, apex produced into 5 cusps; spine-row with 2 spines, 1st simple, second representing 4 spines fused



Fig. 1. *Heteromysoides dennisi*: A, Anterior end, dorsal; B, Antenna 1 peduncle, ventral; C, Antenna 2 peduncle, dorsal; D, Scale of antenna 2; E, Left mandible; F, Incisor and lacinia of left mandible; G, Right mandible; H, Mandibular palp; I, 3rd segment of mandibular palp from reverse side, showing surface setae; J, Labrum; K, L, Outer and inner lobes of maxilla 1; M, Maxilla 2; N, Maxilliped; O, Part of maxilliped from reverse side, showing setae with insertions indicated by dotted circles in N; P-T, Pleopods 1-5.

proximally and free apically; molar elongate with marginal hairs and denticles. Left mandible incisor 3-cusped; lacinia 4-cusped; spine-row with 3 spines, 1st with denticulate apex, 2nd and 3rd with 2 and 3 apical teeth respectively; molar shorter than in right mandible, grinding surface with rows of nodules. Palp with

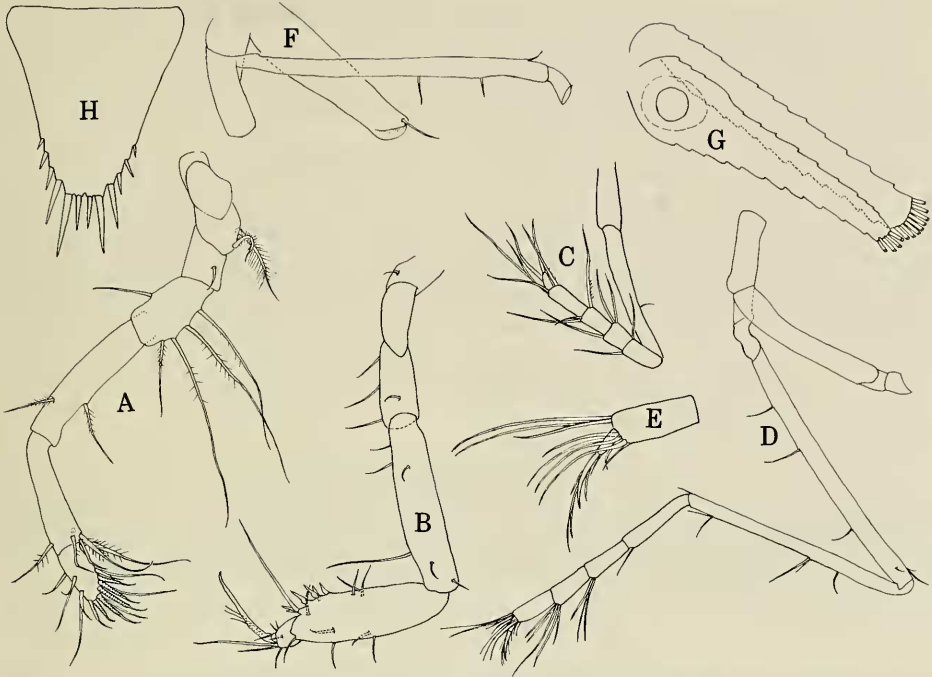


Fig. 2. *Heteromysoides dennisi*: A, Pereopod 1; B, Pereopod 2; C, Pereopod 4; D, Pereopod 6; E, Pereopod 7, dactyl and last "tarsal" segment; F, Penis and proximal segments of pereopod 7; G, Uropod; H, Telson.

very short 1st segment; 2nd segment about $2.5 \times$ length of 3rd segment, with row of basally plumose setae on both margins, distal setae much longer than others; 3rd segment widening distally, oblique apex with row of close-set marginal setae, long seta inserted subapically.

Paragnaths short, apically rounded, setation sparse (Fig. 1J).

Maxilla 1 outer lobe with 3 surface setae and about 10 apical spines; inner lobe with 3 long setae and about 7 short setae. Maxilla 2 with well developed heavily setose endites; segments of endopod subequal in length, distal segment broadly oval, heavily setose; exopod reaching distal margin of proximal segment of endopod.

Maxilliped (endopod of thoracopod 1) with well developed endite of basis reaching nearly to distal margin of ischium; medial margins of segments densely setose. Pereopod 1 (endopod of thoracopod 2), merus with 4 long setae on anterior margin; propus with 4 long setae at anterodistal corner; dactyl with marginal plumose setae and longer naked setae. Pereopod 2 propus wider than other segments, nearly $\frac{1}{3}$ as wide as long; distal $\frac{1}{3}$ of flexor margin with several spines with swollen bases and setae at distal corner about $\frac{2}{3}$ as long as propus; claw slender, more than $3 \times$ length of rest of dactyl. Pereopods 3–7 long, slender, "tarsus" of 3–5 segments, each with distal cluster of long setae. Penis cylindrical, more than $\frac{1}{2}$ length of merus of pereopod 7, apex with groove and single seta.

Pleopods with 4 setae on pseudobranchial lobes and 2 setae on medial margin. One apical seta on pleopods 1–2, 2 on pleopods 3–4, 3 on pleopod 5. Pleopod 1

apex not reaching beyond pseudobranchial lobe. Apical seta of pleopod 2 about $1.8 \times$ length of pleopod body.

Rami of uropod subequal in length. Exopod subrectangular, almost $7 \times$ as long as wide. Endopod tapering distally, nearly $4 \times$ as long as greatest width (across statocyst); without spines in region of statocyst.

Comparisons.—*Heteromysoides dennisi* can be readily distinguished from the four other species of *Heteromysoides* by two easily seen features, a spiniform process at the distolateral corner of the eyestalk, and the absence of an apical fissure in the telson. The other species of *Heteromysoides* have well developed apical fissures armed with marginal denticles. Other distinctive characters of *H. dennisi* are the absence of spines on the uropodal endopod and the well developed endite on the maxilliped. The significance of the latter cannot be properly evaluated, since the structure of the maxilliped is unknown in *Heteromysoides*, except in *H. spongicola*, which lacks an endite.

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